



CLAIMS

1-38 (canceled)

39) (new) A method for creating and playing a customized program while connected to a data communications network, comprising:

a) providing media reference storage means which is also connected to said data communications network, each media reference providing descriptive information and an address to locate the corresponding media content which is provided by media servers which are also connected to said data communications network,

b) said media servers selected from the group consisting of;

■ means to store archived media segments, said means here called archived media servers, said archived media segments each having predetermined durations and received through a media stream which for each user can be started at an arbitrary offset from the beginning of a media segment and said media stream can be paused and resumed as desired by each user, and

■ means to produce a continuously-playing live broadcast media stream, said means here called live broadcast media servers, said live broadcast media stream being simultaneously broadcast to any number of users and therefore cannot be paused or controlled by individual users,

c) providing means for a plurality of users to create and store their own customized programs, including;

■ means for each user connected to said data communications network to examine media references stored by said media reference storage means,

■ means for each user to build and store onto a shared schedule server their own customized program by selecting media references for desired archived media segments and live broadcast media streams, and specifying a start time or sequence position for each and a maximum play duration for each,

d) providing a plurality of media stream receiving and playing means, each including;

■ means to enable a user to uniquely identify themselves to said shared schedule server,

■ means for said shared schedule server to select said uniquely identified user's said stored customized program,

■ means to receive and play media streams for said user, according to said selected stored customized program,

■ means to interrupt the playing of a first media stream with a second media stream if said second media stream is scheduled to start before the playing of said first media stream has completed, as well as means to automatically resume playing said interrupted first media stream when the playing of said interrupting second media stream is completed,

whereby a user's customized program can include predetermined start times and maximum play durations of both continuously-playing live broadcast streaming media as well as archived media segments, so receiving of the customized program can be entirely automatic and not require manual intervention to start, stop, or resume any type of media, and

whereby a user can access their customized program and immediately receive and simultaneously play their corresponding media streams using any media stream receiving and playing means connected to said data communications network without the need for advance downloads of media content.

5 40) (new) A method as claimed in claim 1, wherein when automatically resuming play of an interrupted archived media segment the offset used will be earlier in said media segment than when said interruption occurred,
whereby an interrupted word or sentence can be heard in its entirety.

10 41) (new) A method as claimed in claim 1, wherein a repeat interval can be specified for said selected media references used to build said customized program,
whereby a single entry in said customized program can result in the playing of the corresponding media stream only at predetermined intervals and for predetermined durations, even for continuously-playing live broadcast media streams.

15 42) (new) A method as claimed in claim 1, wherein said shared schedule server includes means to maintain a record of which archived media segments said user has played along with the offset to which partially-played media segments have been played,
whereby a user can stop receiving a partially-played archived media segment and later, from the same or a different media stream receiving and playing means, automatically resume receiving said partially-played archived media segment.

20 43) (new) A method as claimed in claim 1 wherein said user can store a plurality of said customized programs, each assigned specific times-of-day and days-of-week when they will be automatically utilized,
whereby a user can create customized programs suitable for different times of the day, or days of the week, and automatically receive these at the appropriate times.

25 44) (new) A method as claimed in claim 1 wherein said user can store a plurality of said customized programs, each available for said user to manually select when playing their media stream.

End of Claims

Clarification of Terminology

Applicant would like to clarify the terminology used herein for two types of streaming media, along with a third type of data transfer (which is described first below).

1) File Transfer

This is the traditional way to transfer entire files of data over a data connection, and traditionally uses the file transfer protocol (FTP), though now sometimes the hypertext transfer protocol (HTTP) is used. Generally the entire file must first be received and (at least temporarily) stored locally before it can be opened and used. This is the **primary method taught by Logan** (FIG. 1, FTP Server 125, column 6, lines 55-59, and column 8, lines 24-34), and is **not utilized by the present invention as the present invention does not teach local storage for media content.**

2) Archived Media Segments

These are media files, with specific lengths, stored on remote media servers and are retrieved using a media player which can pause and resume playing the media, and generally can also begin playing the media at any offset into the media file. The media can be played while it is being received (generally after a delay of a few seconds while additional media is received and locally buffered so play can continue from the local buffer if data reception is briefly stopped due to network congestion), and so is categorized as streaming media. The user experience is analogous to a conventional compact disk, VHS videotape or DVD player in that play can be paused and controlled as desired. This type of streaming media is utilized by the present invention.

3) Continuously-Playing Live Broadcast Streaming Media

This can also be played as it is received, so is also called streaming media, but this type cannot be paused or controlled. If receiving and playing is stopped, then the media sent during that time is lost. The data source sends the exact same media stream at the exact same time to all players requesting to receive it. This is analogous to turning on a conventional radio, in that when a connection is made you receive whatever is being broadcast at that time. Internet radio stations use this method, and many conventional radio stations also send a copy of their over-the-air broadcast to the Internet in this manner. However, the delay of the Internet media stream is substantial, often 30 seconds or more, so a "six o'clock" news broadcast may not be received until 30 seconds after six o'clock. This type of streaming media is utilized by the present invention.